

## Appendix A - CICU physician administration of steroids survey

Q1 We are conducting a study to assess practice variations in the use steroids for the management of Low Cardiac Output Syndrome (LCOS). Your participation in this study is voluntary. If you choose to take the survey, your answers will be completely private and confidential. Do you agree to participate in this research study?

- ☐ Yes (1)
- ☐ No (2)

Q2 Select each area in which you are board certified or board eligible. (select all that apply)

- ☐ Pediatrics (6)
- ☐ Cardiology (1)
- ☐ Critical Care (2)
- ☐ Anesthesia (3)
- ☐ Surgery (4)
- ☐ Other (please specify) (5) \_\_\_\_\_

Q3 How many years have you practiced Cardiac Critical Care? (since completion of formal training)

Q4 What hospital/institution does your cardiac intensive care unit (CICU) belong to?

Q5 To the best of your knowledge, how many bypass cases did your center perform over the past 12 months?

- ☐ 0 to 100 (1)
- ☐ 101-200 (2)
- ☐ 201-300 (3)
- ☐ 301-400 (4)
- ☐ >400 (5)

Q6 Which of the following best describes the structure of your center's cardiac intensive care unit (CICU) and pediatric intensive care unit (PICU)?

- ☐ Separate units (CICU with dedicated nurses and physicians) (1)
- ☐ Combined units with dedicated CICU nurses or physicians (2)
- ☐ Combined units but with no dedicated CICU nurses or physicians (3)
- ☐ Other (please specify) (4) \_\_\_\_\_

Q7 How many beds does your unit have? OR Q9 How many cardiac beds does your unit have?

Q8 How many physicians (regardless of their training background) provide care for post-operative cardiac surgery patients in your center (CICU or combined unit)?

Q9 Consider the following descriptions of Low Cardiac Output Syndrome (LCOS) severity levels: To what extent do these reflect your own views regarding the distinctions between LCOS severity levels?

- ☐ Not at all (1)
- ☐ Partially (2)
- ☐ Mostly (3)
- ☐ Completely (4)

If Q9 ≠ Completely

Q10 What would you change about the descriptions of these levels to make them completely reflect your views?

*The next several questions address how frequently you have initiated steroid therapy treatment of LCOS at the various levels described in the previous question.*

Q11 How often have you initiated steroid therapy for treatment of LCOS described in the previous question as "mild" (i.e., single vasoactive agent, slightly decreased urine output and cool extremities)?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

Q12 How often have you initiated steroid therapy for treatment of LCOS described in the previous question as "moderate" (i.e., two or more vasoactive agents, tachycardia and slightly elevated lactate)?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

Q13 How often have you initiated steroid therapy for treatment of LCOS described in the previous question as "severe" (i.e., two or more vasoactive agents, tachycardia, elevated lactate AND refractory hypotension)?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

Q14 Which steroid agent do you most often use for treatment of LCOS? (select only one option)

- ☐ Hydrocortisone (1)
- ☐ Hydrocortisone + Fludrocortisone (2)
- ☐ Methyl-prednisolone (3)
- ☐ Dexamethasone (4)
- ☐ Other (please specify) (5) \_\_\_\_\_

Q15 What dose of Hydrocortisone do you most often use?

- ☐ 50 mg/m<sup>2</sup>/day (1)
- ☐ 100 mg/m<sup>2</sup>/day (2)
- ☐ 1 mg/kg/day (3)
- ☐ 2 mg/kg/day (4)
- ☐ Other (please specify) (5) \_\_\_\_\_

*This next set of questions ask you about the use of cortisol levels in the administration of steroids in patients with LCOS.*

Q16 Does your institution provide a way to measure cortisol level prior to the administration of steroids?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I don't know (3)

Q17 How often do you measure a cortisol level prior to administration of steroids in patients with LCOS?

- ☐ Never (1) – Please explain why \_\_\_\_\_
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

Q18 What cortisol test does your institution most often perform when steroid therapy is initiated in patients with LCOS?

- ☐ I don't know (6)
- ☐ Total cortisol (1)
- ☐ Plasma free cortisol (2)
- ☐ Other (please specify) (7) \_\_\_\_\_

If Q17 ≠ Never

Q19 How often do you start steroid therapy before cortisol testing results are available?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

If Q19 ≠ Never

Q20 After cortisol testing results become available, how often do you tailor steroid therapy based on cortisol levels?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

If Q20 ≠ Never

Q21 What initial cortisol level do you most often use as a threshold to determine initiation of steroid therapy? Note: Levels are provided in both metric and S.I. units since familiarity varies.

- ☐ I don't know (12)
- ☐ < 5 mcg/dl (or < 138 nmol/l) (19)
- ☐ < 9 mcg/dl (or < 250 nmol/l) (20)
- ☐ < 15 mcg/dl (or < 414 nmol/l) (21)
- ☐ < 18 mcg/dl (or < 500 nmol/l) (22)
- ☐ Other (please specify) (5) \_\_\_\_\_

*This next set of questions asks you about the use of a cosyntropin stimulation test prior to the initiation of steroid therapy for LCOS.*

Q22 Does your institution provide a way to perform a cosyntropin stimulation test?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I don't know (3)

If Q22 ≠ Yes

Q23 How often do you perform a cosyntropin stimulation test prior to the initiation of steroid therapy?

- ☐ Never (1) Please explain why \_\_\_\_\_
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

If Q23 ≠ Never

Q24 What dose of cosyntropin do you usually use for the stimulation test?

- ☐ I don't know
- ☐ 1 mcg (1)
- ☐ 125 mcg (2)
- ☐ 250 mcg (3)
- ☐ Other (please specify) \_\_\_\_\_

Q25 How often do you start steroid therapy before cosyntropin stimulation testing results are available?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

If Q25≠Never

Q26 How often do you tailor steroid therapy based on the results of cosyntropin stimulation test?

- ☐ Never (1)
- ☐ Rarely (2)
- ☐ Sometimes (3)
- ☐ Usually (or Always) (4)

If Q26≠Never

Q27 What initial cortisol level rise do you most often use as a threshold to determine initiation/continuation of steroid therapy? Note: Levels are provided in both metric and S.I. units since familiarity varies.

- ☐ I don't know (12)
- ☐ < 5 mcg/dl (or < 138 nmol/l) (19)
- ☐ < 9 mcg/dl (or < 250 nmol/l) (20)
- ☐ < 15 mcg/dl (or < 414 nmol/l) (21)
- ☐ < 18 mcg/dl (or < 500 nmol/l) (22)
- ☐ Other (please specify) (5) \_\_\_\_\_

Q28 How willing would you be to conduct this study with patients in each of the given severity levels? (Select a choice for each severity level)

	Not at all willing (1)	Only slightly willing (2)	Somewhat willing (3)	Very willing (4)
Mild LCOS (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moderate LCOS (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Severe LCOS (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>